



Pledging to Reduce Toxicity in Your Healthcare Facility

Background

Hospitals are a source of a variety of toxic and hazardous substances. Given the range of processes that occur in a hospital-- from x-rays to lab work to research to the extensive array of boilers and generators that hospitals require-- facilities can often use hundreds of products that have a considerable impact on the environment and human health. The national Hospitals for a Healthy Environment program (H2E) includes as one of its goals the need to identify and eliminate hazardous and persistent, bioaccumulative and toxic (PBT) chemicals from the healthcare sector. PBTs are chemicals identified by the US EPA as those with the greatest potential to affect the environment and public health. VH2E plans to work with healthcare facilities to help them transition from toxic and hazardous products to less toxic alternatives. The VH2E commitment for Toxicity Reduction consists of:

Task 1: Establishing a committee or 'green team' to encourage Environmentally Preferable Purchasing (EPP) and other toxicity and waste reduction programs in your facility. Resources:

1. How to Do EPP in Hospitals.
www.h2e-online.org/tools/epp1.htm
2. Environmentally Preferable Purchasing How-To Guide.
http://www.noharm.org/library/docs/Going_Green_5-1_Environmentally_Preferable_Pur.pdf



The committee should include a diverse array of players, including clinicians, materials management, environmental services, housekeeping, facilities, infection control, risk management and upper level administration. The intent of this committee is to strategize about facility priorities, courses of action and potential new programs with representation from all responsible sectors.

Task 2: Developing and implementing 3 EPP/toxicity reduction projects.

Inventorying your mercury use and developing a mercury-free purchasing policy counts as one of the three programs. Therefore, the 'Green Team' only needs to address 2 additional project areas.

There is no prescribed timeline for these projects, rather this task is intended to help your facility set reachable goals. VH2E will be happy to work with your facility to help choose a project that meets your facility's priorities and capabilities. As in the case of mercury reduction, a logical plan is to:

- (1) Identify a list of possible projects that make sense for your facility**
- (2) Collect data regarding current practices**
- (3) Assess opportunities to transition to alternatives or make changes to purchasing/handling policies.**
- (4) Measure and document change.**

Below, we have provided a list of possible project ideas. Other projects that contribute to the end goal of toxicity reduction and pollution prevention are equally acceptable.

We also want to hear from you if you have already begun to implement these types of programs in your facility. In addition to the resources below, you can always contact the H2E toll free hotline for technical assistance at 1-800-727-4179 or via email at h2e@hcwh.org.

EPP/Toxicity Reduction Ideas

1. Cleaning Products. Begin the transition to greener cleaning products. Cleaning chemicals can often impact worker safety as well as patient and environmental health. Resources:

a. INFORM's Cleaning for Health
<http://www.informinc.org/cleanforhealth.php>

b. Cleaning Chemical Use in Hospitals
http://www.noharm.org/library/docs/Going_Green_6-4_Cleaning_Chemical_Use_in_Hospi.pdf

2. Safer Sterilization. Look for opportunities to reduce/eliminate the use of glutaraldehyde and ethylene oxide as sterilants. Resources:

a. Ethylene Oxide Factsheet
<http://www.h2e-online.org/pubs/eo.pdf>

b. EnviroSense Factsheet on Ethylene Oxide Sterilant Alternatives
<http://es.epa.gov/techinfo/facts/ca-htm/oxide-fs.html>

c. Sustainable Hospital Project's 10 Reasons to Eliminate Glutaraldehyde:
http://www.noharm.org/library/docs/Going_Green_6-3_10_Reasons_to_Eliminate_Glutur.pdf

3. Incineration Alternatives. Are you still incinerating either your solid or your regulated medical waste? If you are autoclaving, is your rendered waste then incinerated? Consider changes to your RMW treatment. Resources:

a. Non-Incineration Medical Waste Treatment Technologies
http://www.noharm.org/library/docs/Non_Incineration_Medical_Waste_Treatment_Te_2.pdf

b. Medical Waste Treatment Technologies: Evaluating Non Incineration Alternatives
http://www.noharm.org/library/docs/Toolkit_8_Medical_Waste_Treatment_Technologies.pdf

4. Universal Waste Recycling. Fluorescent bulbs, batteries and computers must be managed as disposed of as hazardous waste-- unless they are recycled as Universal Waste. Make sure that each of these waste streams is being collected, handled properly, and recycled through a responsible recycling vendor. Resources:

a. 10 Steps to Recycling Fluorescent Bulbs
<http://www.h2e-online.org/pubs/fluorrec.pdf>

b. Battery Roundups: Get Charged!
http://www.noharm.org/library/docs/Going_Green_Batter_Roundups_-_Get_Charged.pdf

c. Computer recycling- List of Vendors in VA
<http://www.deq.state.va.us/recycle/computer.html>

5. Laboratory Chemical Reduction. Are your waste chemicals being managed and disposed of properly? Are you sure? Are you still using mercury-containing fixatives? Are there closets of left-over chemicals that no one uses anymore? How much do you spend for chemicals and disposal? Consider developing a plan for ensuring regulatory compliance and reducing your laboratory chemical purchases, spills, wastes and worker exposure. Resources:

a. Chemical Purchasing Practices
<http://www.c2p2online.com/documents/biomedicalP2information.pdf>

b. Sustainable Hospitals Project List of Non-Mercury Lab Alternatives:
http://www.sustainablehospitals.org/cgi-bin/DB_Report.cgi?px=W&rpt=Subcat&id=18!20

c. Microscale Chemistry uses least amount of toxic chemicals in lab processes.
<http://www.silvertech.com/microscale/index.html>

6. Energy Efficiency. Save your facility money and reduce your facility's environmental impact by becoming more energy efficient. When purchasing lighting, computers, copiers and other equipment, energy consumption should be factored into the cost. Resources:

a. EPA's Energy Star labeling program certifies electrical equipment that meets certain criteria for energy efficiency, and many facilities have adopted policies which require the purchase of Energy Star equipment. See EnergyStar's Purchasing and Procurement Page:
http://www.energystar.gov/index.cfm?c=bulk_purchasing.bus_purchasing

b. Energy Self-Audit Assessment Tool. EPA's EnergyStar for HealthCare program also offers a free, online energy self-audit to identify opportunities to lower your facility's energy costs significantly.
<http://yosemite1.epa.gov/estar/business.nsf/webmenus/Healthcare>.

c. Pollution from Energy Use Calculator.. In addition to saving money, your facility can tout reductions in environmental impacts that result from decreased energy consumption.
<http://www.cleanerandgreener.org/pollution-from-electricity.htm>.

7. Pesticide Reduction. Develop an Integrated Pest Management (IPM) program to rid your hospital of toxic exposures related to pesticide applications. IPM incorporates using the least toxic effective method to eliminate pest species. Resources:

a. Pesticides-Integrated Pesticide Management
<http://www.h2e-online.org/tools/chem-ipm.htm>

b. Pest Management in New York State Hospitals
<http://www.oag.state.ny.us/environment/hospital95.html>

8. Reducing PVC Use in Hospitals. Polyvinyl chloride, or PVC plastic, can contribute to the production of dioxin, a deadly carcinogen, both during manufacture and when disposed of via incineration. There are safe and effective alternatives for nearly every PVC-containing product in healthcare. Resources:

1. Dioxin, PVC and Healthcare
http://www.noharm.org/library/docs/Going_Green_3-1_Dioxin_PVC_and_Health_Care.pdf

2. Reducing PVC Use in Hospitals
http://www.noharm.org/library/docs/Going_Green_3-4_Reducing_PVC_Use_in_Hospitals.pdf

3. PVC Audit Tool
<http://noharm.org/details.cfm?type=document&id=741>

4. PVC Alternatives List
http://www.noharm.org/library/docs/Going_Green_3-5_PVC_Alternatives.pdf

9. Recycling. How can you recycle paper and still comply with HIPAA? Learn how to properly recycle your confidential documents in addition to bottles, cans and plastic. 'Close-the-loop' by establishing a purchasing policy to 'buy-recycled' products

whenever possible. Resources:

1. Paper Destruction, Recycling and HIPAA
http://www.h2e-online.org/tools/waste_hipaa.htm
2. Recycling Fact Sheet for Hospitals
http://www.noharm.org/library/docs/Going_Green_4-6_Recycling_Fact_Sheet.pdf
3. Sample Policy for Buying Recycled.
<http://www.noharm.org/details.cfm?ID=749&type=document>.

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